

University of Groningen

Does shared space lead to more communication in cyclists?

Steyvers, Frank J.J.M.

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Publication date:
2015

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Steyvers, F. J. J. M. (2015). *Does shared space lead to more communication in cyclists?*. 25-25. Poster session presented at 2015 Annual Conference of the Human Factors and Ergonomics Society Europe Chapter, Groningen, Netherlands.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Does shared space lead to more communication in cyclists?

*Frank J.J.M. Steyvers**

Issue: Shared Space, coined by Hans Monderman, comprises a design procedure for the (built) environment that involves all stake holding participants. It results in a traffic environment that is to be used by all traffic modes, without particular designated places in the traffic space and without the traditional environmental elements such as traffic lights, signs, curbs and sidewalks.

One of the basic assumptions is that traffic participants will engage in more mutual communicative behaviours to make their intentions clear, since the environment does present hardly any formal traffic information (Hamilton-Baillie, 2008).

Question: does a shared-space area lead to more mutual communicative behaviours? The question is geared to cyclists since their communicative behaviours are easily observed.

Method: two traditional intersections, one regulated with priority signs and one not-regulated, and a shared-space area were selected to observe passing cyclists – see figures 1, 2 and 3. On each location about 300 cyclists were observed, and their behaviours were categorized and counted. Furthermore, gender was scored and age was estimated and classified as young, middle-aged and elderly. The dependent variable per individual was the number of behaviours in three classes: formal (1: bell ringing, giving a direction signal by sticking out an arm or a hand), informal (2: verbal contact, eye contact, gestural contact) and other (3: looking, back, looking side wards, looking to another direction, changing speed, pre-sorting, other).

Results: Figure 4 shows the results, which were concentrated on the effects of location. The original BSc-theses upon which these results are based, are available on request.



Figure 1: intersection with priority regulation (Kerklaan x Leliesingel in the Noorderplantsoen in Groningen, NL)



Figure 2: intersection without priority regulation (Folkingestraat x Vismarkt in Groningen, NL)



Figure 3: shared-space area, Rijksstraatweg in the centre of Haren, NL

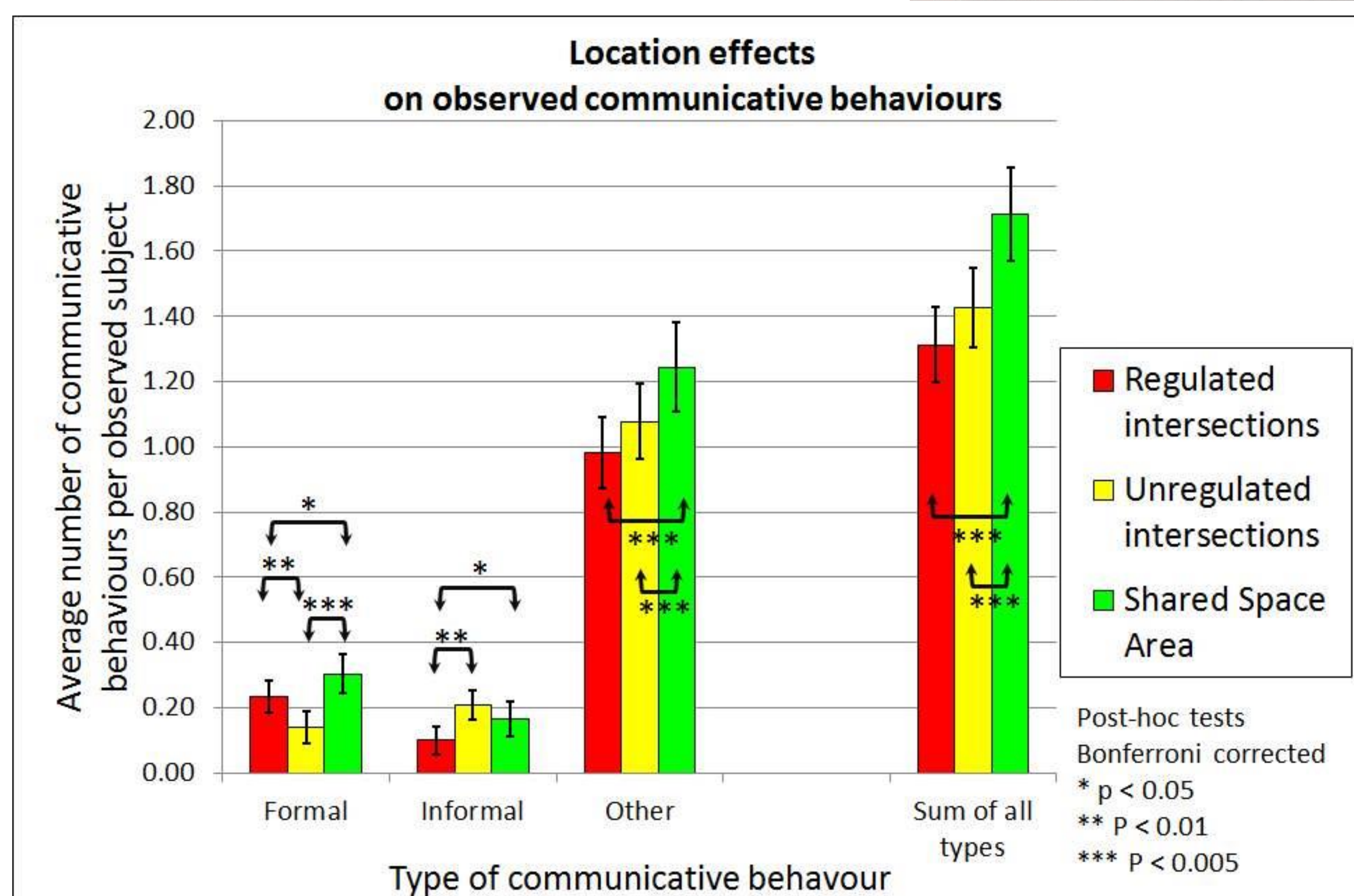


Figure 4: Average number of communicative behaviours per subject in cyclists as function of location, separate for type of behaviour (formal, informal, other) and cumulated.

The average number of observed communicative behaviours per subject was highest in the Shared-Space area, compared to the two other, traditional intersections; the two traditional intersections did not differ. Looking at the type of communications: cyclists showed more formal and more other types of communications in a Shared-Space area than in the two traditional environments, but no more or even less informal communications.

Conclusion: The assumption that in a Shared-Space area more communicative behaviour takes place than in traditionally laid-out environments, was supported in this study. Whether this will lead to safer traffic has to be established yet, since for the chosen traditional locations no reliable accident data were available.

Literature: Hamilton-Baillie, B. (2008). Towards shared space. *Urban Design international*, 13(2), 130-138. doi:10.1057/udi.2008.13

* Department of Psychology, University of Groningen, The Netherlands. Contact: f.j.j.m.steyvers@rug.nl

Acknowledgement: this poster is based on the Bachelor's Theses of Anna Brandsma, Sjoerd Kooistra, Tristan Nijboer and Katinka de Vries.

The picture in figure 3 is made by Else Havik and used with her permission; the others are by the author.